REMARKS

Claims 1, 11, 21, 38, 40, 47, 49, 51, 62 and 71 have been amended.

Accordingly, Claims 1-11, 13, 17, 21-34, 38-43, 47-55, 57-60, 62-65 and 71-81

are pending in the application.   The reconsideration of the application is

respectfully requested.

On the merits, Claims 1-11, 13, 17, 21-34, 38-43, 47-55, 57-60, 62-65 and

71-81 stand rejected under 35 U.S.C. Section 103(a) as unpatentable over Schutzer

in view of Kolling et al.   For the sake of clarity, Claims 1-46 and 48-81 were

rejected by the Examiner. However, only Claims 1-11, 13, 17, 21-34, 38-43, 47-

55, 57-60, 62-65 and 71-81 are pending in the application.

In the following remarks, Applicants will show that the present invention

provides an adaptive and dynamic common document model for electronic bill

presentment and payment. Applicants will also provide concrete arguments that:

1. Neither Schutzer nor Kolling et al., singly or combined, teach or suggest

that each of the plurality of billers has a subset of data and attributes

accommodated by the common document model, as recited in independent

Claims 1, 21, 38, 40, 47, 49, 51, 62 and 71.

2. Neither Schutzer nor Kolling et al., singly or combined, teach or suggest

translator and a common document tree, as recited in Claim 38.

3. Neither Schutzer nor Kolling et al., singly or combined, teach or suggest

identifying a market segment, as recited in Claim 40.

4. Neither Schutzer nor Kolling et al., singly or combined, teach or suggest

the agent interface, as recited in Claim 47.

5. Neither Schutzer nor Kolling et al., singly or combined, teach or suggest

allowing bill payers to customize presentment, as recited in Claim 49.

6. Neither Schutzer nor Kolling et al., singly or combined, teach or suggest

a modularized input engine, as recited in Claims 51, 62 and 71.

Briefly, the present invention provides an _adaptive_ electronic bill

presentment and payment (EBPP) system which provides a common document

model, allowing a plurality of billers to interface with the system of the present

invention to cooperatively present and accept payment of bills.   The present

invention uses a rules application process to generate a translator that parses the

biller's data stream into a common document model tree.   The data and their

attributes are mapped into nodes that fit the common document model for storage

in the database.   The use of the common format document model and the

universality of its structure allows the plurality of billers using the present

invention to maintain control, from a billing console functionality, over their

billing data and how it is presented on any desired platform using any desired

applications, formats and protocols.   In other words, the present invention can

accommodate individual data sets from, for example, both a first and second biller

without mandating a particular template (for the billers to follow) for both billers.

Essentially, Applicants' common model document processing functionality provides for a generic conversion process that is not confined to a particular industry, biller, or type of customer. Thus, the present invention provides for <u>dynamic structural processing and conversion</u> of a plurality of bill data types.

Schutzer discloses a method and system for presentment of bills wherein the biller account automatically formats a bill to conform to standard bill definition language for a consumer and automatically stores the formatted bill in a storage location, such as a commerce document server (CDS) (see Schutzer Abstract and Figs. 1-7). More specifically, a bill service provider (BSP) formats the bill and places the bill directly in the biller's mailbox for electronic mailing. Then, a consumer service provider (CSP) accesses the electronic bill produced by the bill service provider, along with other bills for the consumer, stores the bill(s), and presents the bill(s) to the consumer. Schutzer, therefore, provides a method and system that enables a plurality of inter-related entities and applications to interact with each other to provide electronic bill presentment and payment. Billing information are transferred from the billers to a BSP, from the BSP to a CDS, from the CDS to a CSP, and then finally from the CSP to the consumer. These separate entities and applications are authenticated by another entity, the certificate authority (see Schutzer Figs. 1-7). As can be seen, the billing information is routed through multiple applications and entities before it is finally presented to the consumer. In addition, because of the limitation with

coordinating interactions between multiple entities and applications, Schutzer provides a system in which incoming billing data <u>is processed without transformation</u> before it is presented to the consumer. Schutzer, in fact, formats the bills into a standard bill definition language to prepare it for routing through multiple entities and applications.

Kolling et al. disclose an electronic statement presentment (ESP) template system to replace the preparation and mailing of paper statements. The system disclosed by Kolling et al. works exclusively with billers that have electronic delivery capabilities and, using statement data received electronically from a biller and a <u>"stored" template</u>, creates an electronic statement having the "look and feel" of a paper statement by making available a plurality of templates. More specifically, the system of Kolling et al. allows billers to control the "look and feel" of bill statements through the use of a statement template (see Kolling et al., column 17, lines 58-60). A parsing program is disclosed to convert statement augment record (SAR) data to statement content record (SCR) data. The SCR "is in a standard form expected by the ESP system and by the template" (emphasis added) (see Kolling et al., column 28, lines 52-54). Thus, Kolling et al. disclose a billing system implementing static data structure. The biller essentially generates bill statement according to a <u>static format/template</u> created by the biller. In fact, Kolling et al. clearly disclose creating "**a template of static biller information** to

serve as a basis for the electronic statement" (emphasis added) (see Kolling et al.,

Abstract).

To put things into perspective, the words "template/templates" appear in the

Kolling reference approximately <u>325 times</u>. The word "static" made no less than

<u>19 appearances</u> in the Kolling reference.

The References do not teach an adaptive and dynamic data structure.

With respect to independent Claims 1, 21, 38, 40, 47, 49, 51, 62 and 71, the

Examiner concedes that Schutzer <u>does not</u> teach the parsing/extracting

functionality and the common model document element and cites the *abstract,*

column 18, lines 3-56, column 23, lines 10-50 of Kolling et al. to cure this

deficiency of Schutzer.

Applicants have amended Claims 1, 21, 38, 40, 47, 49, 51, 62 and 71 to

further distinguish over Schutzer and Kolling et al. by reciting an EBBP system or

method which enables a plurality of billers to interface with each other to

cooperatively present and accept payment of bills using a parsing (or extracting)

functionality and a common document model processing functionality, <u>wherein</u>

<u>each of said plurality of billers has a subset of data and attributes accommodated</u>

<u>by said common document model</u>. By using a common document model format,

the present invention provides *a dynamic data structure*. For example, not every

biller data has the same information and data; <u>each biller will have a subset of all</u>

data and attributes accommodated by the common document model and parsing/extractor functionality. Thus, the common document model and parsing functionality provides for a dynamic data structure which enables all billers to cooperatively present and accept payment of bills.

Furthermore, Applicants' common document model processing functionality provides a generic conversion process that is "not confined to a particular industry, biller, or type of customer" (see Applicants' Specification, page 9, lines 3-5) and accepts any subset of data from any biller. Fundamentally, the common model processing allows the present invention to aggregate its fields of data to accommodate bills from any biller or type of customer (see Applicants' Specification, page 28, lines 9-17). *For example, a first biller may require one particular subset of data while a second biller may require a similar subset data in additional to another subset of data that is substantially different from that of the first biller.* Using the common model processing, the present invention can accommodate the individual data sets for both the first and second biller's without mandating a particular template for both billers. Therefore, billers retain autonomy on how they collect, group, display, and present their billing information. In short, Applicants' common document model processing functionality solves the problem associated with multiple billers having and requiring different information by accepting any subset of any data from any biller.

Schutzer discloses that the bill service provider converts the bill, along with enclosures, to a standard bill definition language (see Schutzer column 14, lines 32-35). "The standard bill definition language is an extension of hypertext markup language/extended markup language that allows for combining templates with data and taking digital signatures" (see Schutzer, column 14, lines 35-38). In other words, Schutzer's standard definition format merely provides instructions for formatting the bills uniformly based on pre-determined templates. Therefore, as can be seen, Schutzer does not disclose a parsing functionality with a translator for parsing data into a common document tree with data and attributes, wherein each of the plurality of billers has a subset of data and attributes accommodated by the common document model.

Kolling et al. do not cure the deficiencies of Schutzer. Kolling et al. do not parse billing data from a plurality of billers corresponding a plurality of biller data types and does not convert said plurality of biller data types in to a common document model, wherein each of the plurality of billers has a subset of data and attributes accommodated by the common document model. As previously discussed above, the parsing program of Kolling et al. converts statement augment record (SAR) data to statement content record (SCR) data in which the SCR is in a standard form expected by the ESP system and by the template. The system of Kolling et al. is not adaptive but rather is <u>highly dependent on pre-defined static templates</u>. Thus, Kolling et al. do not disclose or suggest a parsing functionality

and a common document model that allows a plurality of billers to cooperatively present and accept payment of bills using a common model document functionality, wherein each of the plurality of billers has a subset of data and attributes accommodated by the common document model.

The _adaptive and dynamic_ data structure of the present invention can grow or shrink as needed to contain the data the system wants stored. That is, the present invention can allocate new storage when its needed and discard that storage when it is done with it (not every biller data has the same information and data; each biller will have a subset of all data and attributes accommodated by the common document model). Hence, use of the common document model by the present invention allows accommodation of all biller data types. In short, the dynamic data structure provided for by the use common document model allows the data structure of the invention of Claims 1, 21, 38, 40, 47, 49, 51, 62 and 71 to grow or shrink (i.e., dynamic data structure) while Kolling et al. teach a non-adaptive bill format with static data structure.

The References do not teach a Translator and a Common Document Tree.

The Examiner failed to cite or provide any evidence for the anticipation, teaching, or suggestion of a translator and a common document tree which contains data and attributes which are mapped into nodes, as recited in independent Claim 38.

Independent Claim 38 distinguish over Schutzer and Kolling et al. by reciting a parsing (or extractor) functionality using rules of conversion which is a rules application process allowing a user to <u>generate a translator</u> for parsing the billing data into a common document tree in which the common document tree contains data and attributes which are mapped into nodes which fit a common model document for storage.

The creation of a translator for parsing data and attributes into a form that can be stored in a common format storage model allows the present invention to efficiently present the bill to the consumer, query the stored data, control how it will be presented (e.g., brand building); and use the stored data as a customer service tool (e.g., help desk) (see Applicants' Specification, page 10, lines 3-7). In addition, each biller will have a subset of all data and attributes accommodated by the common document tree and parsing/extractor functionality because not every biller data has the same information and data. The parsing/extractor functionality provides a generic conversion process that is not confined to a particular industry, biller, or type of customer <u>and accepts any subset of data from any biller</u>.

Neither Schutzer nor Kolling et al. teach or suggest the parsing functionality, the translator and the common document tree. Schutzer merely formats the bill and routes it to the consumer. Similarly, the ESP system of Kolling et al. <u>merely provides a static data structure that is limited by the</u>

templates. Kolling et al. do not "operate" on the biller data and do not parse the biller data into a common document tree with data and attributes mapped into nodes for a common model document.

The References do not teach Identifying Market Segments.

Claim 40 further distinguishes over Schutzer and Kolling et al. by reciting "a biller interface coupled to said database adapted to allow said plurality of billers to identify market segments of said bill payers according to market rules and information retrieved from said database." The Examiner cites Schutzer, *fig. 25, and column 20, lined 16 to 55* for Claim 40; however, the Schutzer drawings and text referred to by the Examiner do not disclose a biller interface as recited in Claim 40. In fact, there is no mention of the billers being able to identify market segments of bill payers in the Schutzer patent. Column 20 lines 16-55 of Schutzer discloses a flowchart detailing the process of payment of the bill and a flowchart detailing the process of acknowledging payment received. Fig. 25 of Schutzer shows the process of the consumer transferring to a new CSP. Thus, as can be seen, the citations for the identifying market segments are erroneous and Claim 40 clearly distinguish over Schutzer.

Kolling et al. do not mention a biller interface as recited in Claim 40 either. Kolling et al. do not disclose or suggest allowing the biller to identify market segments with the biller interface.

Applicants, therefore, respectfully traverse the Examiner's assertion of anticipation as to market segment element as recited in Claim 40.

The References do not teach an Agent Interface.

Claim 47 further distinguishes over Schutzer and Kolling et al. by reciting "an agent interface coupled to said database adapted to allow a plurality of agents having agency relationships with said plurality of billers to communicate with said bill payers regarding bills." The Examiner cites Schutzer, *figs. 1-7, column 14 line 26 to column 15, line 2,* which primarily disclose a bill service provider and not an agent interface as claimed. Kolling et al. do not teach or suggest an "agent interface" either. Therefore, Applicants respectfully traverse the Examiner's assertion of anticipation as to an "agent interface" as recited in Claim 47.

The References do not teach allowing Bill Payers to Customize Presentment.

Claim 49 further distinguishes over Schutzer by reciting "bill payer interactivity functionality adapted to detect and respond to communications from said bill payers by at least retrieving from said database information corresponding to said bill payers and presenting said information to said bill payers in a form requested by said bill payers; and biller interactivity functionality adapted to detect and respond to communications from said plurality of billers by at least retrieving from said database information corresponding to said plurality of billers and

presenting said information to said plurality of billers in a form requested by said plurality of billers." The Examiner again cites Schutzer, *figs. 1-7, and column 14, line 26 to column 15, line 2,* which discloses that the "bill can be sent or "pushed" when available or held and sent when requested, i.e., "pulled" (see Schutzer, column 14, lines 51-53). The reference, however, does not disclose that bills can be presented to bill payers in a form requested by the bill payers as claimed (emphasis added). In fact, Schutzer only "allows billers to personally customize and control the content and format of the bill presentment" (Schutzer, column 3, lines 8-9).

Moreover, Applicants stress the feature of Claim 49 which presents information to bill payers "in a form requested by said bill payers" which feature is not disclosed by Schutzer. As disclosed by Applicants, "customers can pay ... in a manner where each bill is presented to the customer in a way that is specially tailored to the customer with graphics, advertising, and other information that has been demographically proven to connect with that particular customer" (see Applicants' Specification, page 12, lines 13-16). Succinctly, the present invention allows both billers and payers to customize and control the presentation of bills whereas Schutzer only allows billers to customize bills. Therefore, Applicants respectfully traverse the Examiner's assertion of anticipation as to the "interactivity functionality" element recited in Claim 49.

With regard to Kolling et al., the biller interface of Kolling et al. only

allows the biller to customize the presentment while the customer customize the payment options. In contrast, Claim 49 allows both the biller and the customer to customize how bills are presented .

Thus, in addition to other patentable features as outlined above, Claim 49 is distinguishable over Schutzer and Kolling et al by incorporating a biller payer interactivity functionality.

The References do not teach a Modularized Input Processing Engine.

The Examiner failed to cite or provide any evidence for the anticipation, teaching, or suggestion of <u>a modularized input processing engine</u>, as recited in independent Claims 51 and 71. Moreover, the Examiner failed to cite or provide any evidence for the anticipation, teaching, or suggestion of the step of modularizing a preprocessing of electronic billing data, as recited in independent Claim 62.

Claim 51 distinguishes over Schutzer and Kolling et al. by reciting "a modularized input processing engine, said input processing engine adapted to preprocess billing data from a plurality of billers corresponding to a plurality of data types." The advantage of using a modularized processing engine is that this facilitates scalability and expandability. For example, if a new form of biller data is encountered or must be dealt with for transformation into a form and format, the modularized input processing engine of Claim 51 allows for the processing of the

new biller data in a modular way (see Applicants' Specification, page 25, lines 17-

19). There may be separate engines for each new form of data so that the output

of each preprocessing engine is ready for processing by a rule-based parsing

engine. In other words, because the preprocessing of biller data is modularized, a

new input processing engine can easily be integrated to handle new data types.

Therefore, Claim 51 is believed to be patentable for the reasons given above.

Method Claim 62 further distinguishes over Schutzer and Kolling et al. by

reciting the step of "modularizing a preprocessing of billing data from a plurality

of billers corresponding to a plurality of data types." As previously discussed with

respect to Claim 51, modularizing the preprocessing of biller data facilitates

scalability and expandability without disrupting the present system configuration.

Therefore, Claim 62 is believed to be patentable over Schutzer and Kolling et al.

for the reasons given above.

Independent Claim 71 distinguishes over Schutzer and Kolling et al. by

reciting a modularized input processing engine, in a manner similar to Claim 51.

Therefore, Claim 71 is believed to be patentable over Schutzer and Kolling et al.

for the reasons given above.

Dependent Claims.

In view of the distinctions noted and the advantages attendant thereto, it is

respectfully submitted that Schutzer and Kolling et al., taken singly or combined,
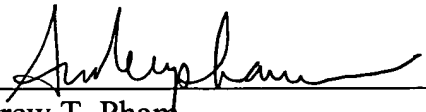
do not teach each and every aspect of the claimed invention of independent Claims 1, 21, 38, 40, 47, 49, 51, 62 and 71, either explicitly or impliedly.

Claims 2-11, 13 and 17, which are dependent upon Claim 1, are believed to be patentable with the parent Claim 1. Claims 22-34, which are dependent upon Claim 21, are believed to be patentable with the parent Claim 21. Claims 39, which is dependent upon Claim 38, is believed to be patentable with the parent Claim 38. Claims 41-43, which are dependent upon Claim 40, are believed to be patentable with the parent Claim 40. Claims 48, which is dependent upon Claim 47, is believed to be patentable with the parent Claim 47. Claims 50, which is dependent upon Claim 49, is believed to be patentable with the parent Claim 49. Claims 52-55 and 57-60, which are dependent upon Claim 51, are believed to be patentable with the parent Claim 51. Claims 63-65, which are dependent upon Claim 62, are believed to be patentable with the parent Claim 62. Claims 72-81, which are dependent upon Claim 71, are believed to be patentable with the parent Claim 71.

In summary, Claims 1-11, 13, 17, 21-34, 38-43, 47-55, 57-60, 62-65 and 71-81 are believed to be allowable for the reasons given herein. Accordingly, these claims remain pending following entry of this Amendment, and are in condition for allowance at this time. As such, Applicants respectfully request entry of the present Amendment and reconsideration of the application, with an early and favorable decision being solicited. Should the Examiner believe that the

prosecution of the application could be expedited, the Examiner is requested to

call Applicants' undersigned representative at the number listed below.

Respectfully submitted,
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